WorkKeys/MEAP/CTE – Michigan Academic Standards Crosswalk

This project was a collaborative effort between the Michigan Department of Career Development, Office of Career and Technical Preparation, and identified state level experts, professional organizations, and content area teachers in response to requests from administrators and educators. Each crosswalk was developed to the Standards level of the Michigan Curriculum Frameworks. For further development, local district CTE programs will need to do benchmark level linkage with their local curriculum.

As we move forward in the educational process to prepare students for their future, we must recognize our responsibility to provide high quality technical and academic education to best prepare these students for their future goals.

Overview:
- This is a tool to assist Local Educational Agencies to develop crosswalks at the benchmark level for specific programs.
- CTE curriculum Standards /unit goals were the basis of the crosswalk
- Local district programs need to do benchmark level linkage with their local curriculum.
- Curriculum Standards support the curriculum, with a broad-based focus.
- WorkKeys crosswalks used national occupational job profile information as the basis of determining performance level expectations.
- For new program application submission starting 2003-2004, crosswalk at the benchmark level will be required.

Benefits
- Provides linkages to National Occupational Standards for improvement in program delivery
- Will assist "highly qualified" instructional staff in documenting accountability and supporting new national initiatives
- Demonstrate CTE support of the Michigan Curriculum Frameworks and MEAP objectives
- To enable districts with CTE programs to strengthen communication with curriculum directors, superintendents and building administrators.
- Curriculum crosswalk will encourage communications between Career and Technical and academic educators
- Assist locals in establishing support for academic credit granted for Career and Technical Education programs

Plan Dissemination
- On MDCD/OCTP Web site
    - Posted by pathway
    - Link to Agriscience Web site
- State update meetings
- Presentation to Teacher groups
- Presentations to Administrator groups
- Distribution to Teacher Educators
- Feature item in Newsletters, updates to field
- MDE
- Available to Education Institutions

PERSONAL AND CULINARY SERVICES
CIP Code 12.9999
CONTENT STANDARDS CROSSWALK

Personal and Culinary Services	Michigan Curriculum Frameworks *(As Assessed by the Michigan Educational Assessment Program –MEAP)*			
	Science Strands	**Mathematics Content Standards**	**English Language Arts Standards**	**Social Studies Strands**
8.0 All students will integrate knowledge, skills, and practices required for careers in food production and services.	Strand 1: <u>Constructing New Scientific Knowledge</u>

1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn from books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge. | 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.

. | 1. All students will demonstrate the ability to read and comprehend general and technical materials.

2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.

3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.

4. All students will use the English language effectively.

6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience.

7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing.

9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts.

10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.

11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts | 3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. |

Personal and Culinary Services	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.1 All students will analyze career paths within the food production and food services industries.			1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing.	

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.2 All students will demonstrate food safety and sanitation procedures.			3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.	7. Student will act constructively to further the public good.

Personal and Culinary Services	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.3 All students will demonstrate selecting, using, and maintaining food production equipment.	Strand 4: Using Scientific knowledge in Physical Science: 4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.		3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.	

Personal and Culinary Services	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.4 All students will demonstrate planning menu items based on standardized recipes to meet customer needs.		5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. .	1. All students will demonstrate the ability to read and comprehend general and technical materials.	

Personal and Culinary Services	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.5 All students will demonstrate commercial preparation for all menu categories to produce a variety of food products.		5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.	6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience.	

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
8.6 All students will demonstrate implementation of food service management functions.		1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 4.1 Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special numbers. 4.2 Student recognize that numbers are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. 5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	1. Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments. 3. Students will use knowledge of American government and politics to make informed decisions about government and their communities.

Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
		Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)		
8.7 All students will demonstrate the concept of internal and external customer service.		3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials.

2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.

3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.

6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience.

7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing.

9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts.

10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.

11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts | 7. Student will act constructively to further the public good. |

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.0 All students will integrate knowledge, skills, and practices required for careers in hospitality, tourism, and recreation.	Strand 4: <u>Using Scientific knowledge in Physical Science:</u> <u>4.3</u> All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 2.3 Students compare attributes of two objects or of one object with a standard (unit) and analyze situations to determine what measurement(s) should be made and to what level of precision. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions. 4.1 Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and	

		numbers. 4.2 Student recognize that numbers are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. 4.3 Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers. .	investigate important issues and problems using a variety of resources, including technology to explore and create texts	

Personal and Culinary Services	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.1 All students will analyze career paths within the hospitality, tourism, and recreation industries.		1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.	9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 6. Student will analyze public issues and construct and express thoughtful positions of these issues.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.2 All students will demonstrate procedures applied to safety, security, and environmental issues.	Strand 4: <u>Using Scientific knowledge in Physical Science:</u> <u>4.3</u> All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 7. Student will act constructively to further the public good.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.3 All students will apply concepts of service to meet customer expectations.	Strand 4: <u>Using Scientific knowledge in Physical Science:</u> 4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.4 All students will demonstrate practices and skills involved in lodging occupations.		3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.5 All students will demonstrate practices and skills for travel related services.		1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 2.3 Students compare attributes of two objects or of one object with a standard (unit) and analyze situations to determine what measurement(s) should be made and to what level of precision. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.

	Michigan Curriculum Frameworks (As Assessed by the Michigan Educational Assessment Program –MEAP)			
Personal and Culinary Services	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
10.6 All students will demonstrate management of recreation, leisure, and other programs and events.	Strand 4: Using Scientific knowledge in Physical Science: 4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. 1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change. 3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms. 3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. 4.1 Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special numbers. 4.2 Student recognize that numbers are used in different ways such as counting, measuring, ordering, and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. 4.3 Students investigate relationships	1. All students will demonstrate the ability to read and comprehend general and technical materials. 2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions. 3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts. 4. All students will use the English language effectively. 6. All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts and enlighten and engage an audience. 7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing. 9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts. 10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others. 11. All students will define and investigate important issues and problems using a variety of resources,	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities. 6. Student will analyze public issues and construct and express thoughtful positions of these issues. 7. Student will act constructively to further the public good.

		such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers.	including technology to explore and create texts	

References: Some materials were reviewed by industry representatives and abstracted from sets of standards from the following organizations, the Dietary Managers Association, the American Dietetics Association, The National Restaurant Association - Pro Start Program, the American Culinary Federation, The United States Food and Drug Administration, Center for Food Safety and Applied Nutrition, and the Careers through Culinary Arts Program